

# Montana Office of Vital Records Newsletter

## Improving Death Certification

Walter Kemp, MD, PhD, Deputy State Medical Examiner

In the state of Montana, individuals who certify cause and manner of death, as well as those who oversee the process (e.g., Office of Vital Statistics), could improve the accuracy of death certification by understanding two simple concepts, and by following one simple guideline. The two concepts relate to the contribution of injury to the determination of manner of death, and the guideline relates to correct distinction between a cause and mechanism of death. All three will be discussed below.

Regarding the two concepts: 1) the time elapsed between the occurrence of an injury (e.g., a motor vehicle accident) and the actual time of death is irrelevant in the determination of manner of death. If the injury set up the pathologic changes that ultimately led to death, the nature of the injury (e.g., was self-inflicted, occurred at the hands of another, or was unintentional) determines the manner (e.g., suicide, homicide, or accident). For example, if an individual sustains a motor vehicle accident, and becomes quadriplegic as a result and years later develops urosepsis due to the quadriplegia, the underlying cause of death is the injuries sustained in the motor vehicle accident, and the manner of death is non-natural; 2) whether the injury is the sole cause of death, or merely contributory, the manner of death should be dictated by the nature of the injury. For example, if an 80-year-old male with congestive heart failure and chronic obstructive pulmonary disease falls and breaks his hip, as long as the hip fracture is deemed to have contributed in some significant way to his demise occurring earlier than otherwise expected, the manner of death is non-natural.

Regarding the guideline: unfortunately, death certificates in Montana are often certified with a mechanism of death and not a cause of death. A mechanism of death is the physiologic derangement that results from the cause of death, ultimately leading to the individual's demise. Adhering to this guideline is simple: when a condition is listed on a line in the death certificate, the certifier should ask themselves, "Did this condition arise on its own, or did something cause it?" If something caused it, list that condition on the next line below, and repeat as necessary. If the certifier feels there is not a direct cause to the condition they have listed, but that there are indirect causes, these can be listed in Part II. A death certificate signed as exsanguination illustrates this point. Why did the decedent bleed to death? Was it a gunshot wound or a

**Continued on page 2....**

### Office of Vital Records Staff

Karin Ferlicka  
State Registrar  
(406) 444-4250  
[kferlicka@mt.gov](mailto:kferlicka@mt.gov)

Kathy Thompson  
Data Acquisition Supervisor  
(406) 444-0692  
[ktompson@mt.gov](mailto:ktompson@mt.gov)

Dean Vig  
Records Administration  
Supervisor  
(406) 444-5249  
[dvig@mt.gov](mailto:dvig@mt.gov)

You can find copies of  
earlier newsletters at our  
website:

### Vital Statistics Analysis Unit Staff

Bruce Schwartz, MA, MPA  
Lead Epidemiologist  
(406) 444-1756  
[bschwartz@mt.gov](mailto:bschwartz@mt.gov)

Anna Walker, MS, MBA  
Senior Research Statistician  
(406) 444-1746  
[AnWalker@mt.gov](mailto:AnWalker@mt.gov)

Sarah Price, AAS, BS  
Data Quality Specialist  
(406) 444-6092  
[sprice@mt.gov](mailto:sprice@mt.gov)

## Meet the State Medical Examiners



Left to right: Gary Dale and Walter Kemp

Dr. Gary Dale is the State Medical Examiner. He is originally from Choteau, MT, and completed his undergraduate degree at Carroll College in Helena, MT, his medical degree (MD) at St. Louis University, his pathology residency at Case Western Reserve University in Cleveland, OH, and his forensic fellowship at the Dallas County Medical Examiner's office in Dallas, TX.

Dr. Walter Kemp is the Deputy State Medical Examiner. He is originally from Libby, MT, and completed his undergraduate degree at Carroll College in Helena, MT, his medical degree (MD) at Creighton University School of Medicine in Omaha, NE, his pathology residency at the University of Texas Southwestern in Dallas, TX, his forensic fellowship at the Dallas County Medical Examiner's office, and his PhD in anthropology at the University of Montana in Missoula.

Drs. Dale and Kemp serve as consultants for the coroners in Montana, assisting them via the performance of autopsies, answering questions about death investigation, and reviewing submitted coroner reports. The medical examiners also assist in the formal education of the state's coroners. They assist other agencies, including county attorneys, law enforcement investigators, the Department of Criminal Investigations, and the Office of Vital Statistics.

The medical examiners have three part-time autopsy technicians: Gerald Crego (past Missoula County Chief Deputy Sheriff-Coroner and Undersheriff), Brooke Clark, and Michelle Duffus (who also works for the Toxicology section of the Montana State Forensic Science Division). Drs. Dale and Kemp routinely enlist the aid of the Forensic Science Division in their work, including for toxicologic analysis of autopsy specimens, fingerprint or DNA analysis for identification of unknown individuals, and firearms or toolmark analysis. One final note: Although both the medical examiners are physicians, both routinely answer the phone with either "Gary," or "Willy."

### Continued from page 1.....

ruptured abdominal aortic aneurysm? For those certifiers who would assign "cardiac arrest" as the cause of death without a contributing condition, they should ask themselves if they truly believe the individual's heart just stopped on its own. If not, what was the underlying condition that caused it to stop?

By understanding these two concepts and by following this one guideline, individuals certifying deaths in the state of Montana would be more accurate. The accuracy of death certificates is vital for surviving families to receive insurance benefits and for completion of other paperwork, and the accuracy of death certificates is vital even just for the respect of the deceased individual. The author has heard of one death certificate certified as "cerebral hemorrhoids," when surely the certifier meant "cerebral hemorrhage." Surely no one certifying death certificates would want their own certified in such a callous form. Unfortunately, this is not an isolated example, and until people apply care and diligence to death certification, such examples will continue.

## Certify a Death by Initiating Condition, No Matter How Remote

Walter Kemp, MD, PhD, Deputy State Medical Examiner

An interesting article in the Washington Post<sup>1</sup> discussed the history of James Brady, the White House press secretary shot by John W. Hinckley in 1981 during a failed assassination attempt on President Reagan. Brady's death was ruled a homicide by the medical examiner. To those unfamiliar with how deaths are correctly certified (and, honestly, even to those who routinely engage in death certification), this may appear to be a political ploy to curry favor for gun control or some other political agenda. It is not. The medical examiner's ruling was correct, as long as injuries from the 1981 shooting truly did contribute to Mr. Brady's death.

A very common error made by individuals certifying deaths is to forget the *initiating* condition in the series of events that led to the individual's death, or, even if they remember it, to not factor its role into the manner of death determination. The time between the initiating event and death is irrelevant, whether it be seconds, hours, days, months, or even years. If a person sustains injuries and later dies as a result of conditions created by these injuries, the manner of death is determined by the mechanism of the injury. In the case of Mr. Brady, the injuries were created by the harmful and intentional act of another person, so the manner of death is correctly certified as homicide.

While the reporters' purpose in writing this article is unknown, they brought to national attention an excellent example of a correct manner of death certification due to injuries sustained long before the actual time of death. Physicians, coroners, and other individuals who routinely certify cause and manner of death can learn from this example.

1. Hermann PN, Ruane ME. Medical examiner rules James Brady's death a homicide. *Washington Post*. 8-8-2014 [accessed 8-13-2014]. Available from [http://www.washingtonpost.com/local/crime/james-bradys-death-ruled-homicide-by-dc-medical-examiner/2014/08/08/686de224-1f41-11e4-82f9-2cd6fa8da5c4\\_story.html](http://www.washingtonpost.com/local/crime/james-bradys-death-ruled-homicide-by-dc-medical-examiner/2014/08/08/686de224-1f41-11e4-82f9-2cd6fa8da5c4_story.html)

## Birth Registration Gold Star for Excellence Recipients

We are not providing birthing facilities with score cards for the second quarter of 2014 because of intermittent problems with the state's electronic registration system during that quarter. The state average for on-time registration was reduced to 77% compared to 85% for the first quarter of 2014, due to the computer issues. However, the following facilities received birth registration Gold Stars for Excellence for the second quarter. More than 85% of their births were registered within 10 days.



Big Horn County Memorial Hospital  
Billings Clinic  
Cabinet Peaks Medical Center  
Central Montana Hospital  
Frances Mahon Deaconess  
Great Falls Family Birth Center  
Holy Rosary Healthcare  
Kalispell Regional Medical Center

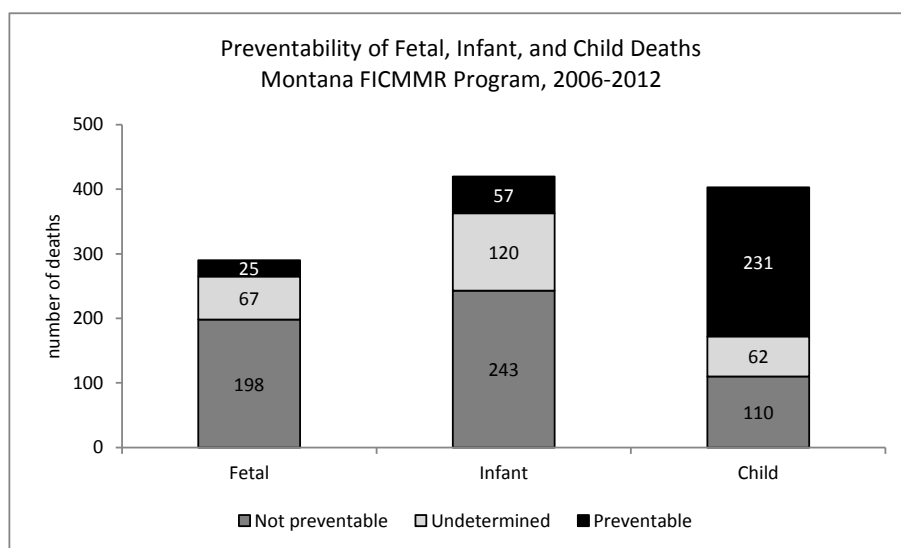
Missoula Birth Center  
Missoula Community Medical Center  
North Valley Hospital  
Northern Montana Hospital  
Northern Rockies Medical Center  
Sidney Health Center  
St. Joseph Hospital  
St. Vincent Healthcare

## Fetal, Infant, Child, and Maternal Mortality Review Program

Lori Rowe, Montana FICMMR Coordinator

The Montana Fetal, Infant, Child, and Maternal Mortality Review (FICMMR) statute requires local jurisdictions to review all deaths of Montana-resident infants and children under the age of 18 years, fetal death from 20 weeks gestation through birth, and maternal death up to one year postpartum. Review teams are community-based and composed of members from county health departments, social services, physicians, law enforcement, coroners, and other experts. The participation of these professionals in reviewing these cases can lead to a greater understanding of the circumstances of the deaths and better identify methods for prevention. If a case is determined to have been preventable, the team formulates recommendations, policies, and activities within their community.

For children over the age of 1 year, more than half of all deaths were determined to be preventable, many due to unintentional injuries. For infants and for fetal losses, the great majority were determined not to be preventable; many of these deaths were attributed to birth defects or conditions arising in the perinatal period that are not readily susceptible to prevention activities.



The Vital Statistics Analysis Unit produces a monthly list of fetal, infant, child, and maternal deaths which assist the FICMMR teams in their review processes. These lists ensure that all eligible cases are reviewed and assigned to the appropriate local team. Prompt and accurate filing of death certificates supports FICMMR activities.

The FICMMR program has enabled teams to advocate and successfully change many public policies. One team had a stop sign installed at an intersection with a history of fatal accidents. Another team supported the Red Thumb campaign in their community: students and parents painted their thumbs red to remind them not to text and drive. Through the use of Vital Records, the FICMMR program is able to address and reduce the number of deaths to some of Montana's most vulnerable populations.